



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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August 9, 1994

TO: Minerals File

FROM: Tony Gallegos, Reclamation Engineer *ag*

RE: Site Inspection, Great Salt Lake Minerals Corporation (GSLM), Little Mountain Plant Mine, M/057/002, Weber County, Utah

Date of Inspection: August 2, 1994  
Time of Inspection: 0940 -1405  
Conditions: fair skies, warm, deer flies  
Participants: Mark Kaschmitter, GSLM; Tom Kaylor, Chubb Group of Insurance Companies; Tony Gallegos, Travis Jones, and Lynn Kunzler, DOGM

Purpose of Inspection: To examine the current operations in order to perform a 5-year evaluation of the reclamation cost estimate, and familiarize Division staff with the site.

The inspection began with a brief meeting and video presentation in the GSLM offices. The video provided a good overview of the Little Mountain operations and product line. GSLM produces four main product lines: 1) salt, 2) potassium sulfate, 3) sulfate of potash, and 4) mag-chloride. GSLM is a subsidiary of the Harris Chemical Company. The products produced by GSLM are marketed by the North American Salt Company, a sister company. Mr. Kaschmitter pointed out the company name no longer includes "Chemicals".

We informed Mark of the Division's and Board's policy regarding reclamation cost estimates. We then proceeded to a viewpoint located on the hill just south of the potash storage area. The South Little Mountain Borrow area is visible to the south from this hill. The Western Zirconium Operation is also visible to the south of GSLM's operations. The North Little Mountain Borrow area is partially visible from this vantage point. There is also a scrap yard/bone yard area immediately below the north borrow area. Several photographs were taken of the operations from this location. Mark indicated the current salt storage area will become the new enlarged potash storage area. A new salt storage area will be created to the north of the present salt storage area.





We next visited the mag-chloride plant area. A pipeline comes from the pond system into a lined pond located to the south of the mag-chloride plant. A rail loadout for liquid mag-chloride is near this plant. There are several wells located to the east of the GSLM plant with brackish water. There is also a pond/canal used to store water. This water can be used for process water. The current mine plan includes a provision which would allow GSLM to leave some ponds in place at the time of final reclamation for use by Wildlife Resources.

We next visited the potash storage building. This is one of the dome buildings located onsite. GSLM has a power plant onsite to provide electricity in the event they lose power from the commercial lines, and also to provide steam for their processing. The power plant is powered by natural gas.

Next we visited the new pallet plant. This area includes an asphalt pad for sawdust storage and lumber storage. The pallet plant is a concrete building designed to meet codes similar to explosive plants. The customer service building and truck scales are northwest of the pallet plant. We then had lunch.

Mr. Tom Burton, GSLM Chemical Engineer, helped address questions regarding the operations. GSLM's west desert station has four 20,000 GPM pumps to pump brine from or into the north arm. The brine from the north arm moves to the Promontory Point station via the underwater channel. It takes approximately two weeks for the brine to reach the GSLM plant area. The west station includes a propane tank to power an electric generator for the pumps, and a water tank to flush or prime the pump systems.

We then visited the potash compaction facility. Potash is also pelletized using lignin(?). Circle Lake Construction (CLC) does all truck haulage at the GSLM facility. CLC also has their own maintenance building at the facility. We examined the vehicle fueling station. Mark indicated he will be working on a spill prevention containment and clean up plan for the fueling facility. There are two tank farms here; one for oils and hydraulic fluids, and one for diesel and gasoline. All the tanks are above ground with a gravel field beneath them and concrete barriers protecting them. There does not appear to be a berm or liner beneath the tanks for containment of spillage at this time.

We next visited the thickeners. Mark informed us the thickeners were made/maintained by EIMCO. The condenser is near the thickener and was being worked on during our inspection. The North Little Mountain borrow area is visible from this part of the site.



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There were several radiation warning stickers present in the plant. Mark informed us they use special instruments to monitor/measure density and flow of materials. These instruments use low level radioactive elements to perform their function. We next walked through the crystallizer facility. GSL personnel were performing maintenance/repair work in this facility. This type of work is usually done this time of year while they are maximizing their evaporation process. We then returned to the office for a wrap up discussion.

In conclusion, the Division was to provide a copy of the inspection memo to Mark. The Division is to review drawings on file to see which facilities are not included in these drawings shown. If these drawings are not current, the Division will request updated drawings from GSLM. The Division will send a letter to Max Reynolds with the requested surety amount and blank forms for a surety and reclamation contract. Mark was to examine the borrow areas to see how much area is actually disturbed and to see if they can reclaim some areas in order to reduce the surety amount.

During this inspection GSLM provided the Division with a copy of a report titled "Chemicals From Brine", a GSLM potash brochure, several product sample bottles, and Material Safety Data Sheets for their main products..

jb  
cc: Mark Kaschmitter, GSLM  
Wayne Hedberg, DOGM  
M57-02.mem